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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/187,551 Filing Date: November 05, 1998 Appellant(s): MUSAKA ET AL.

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Chun-Pok Leung For Appellant

Supplemental EXAMINER'S ANSWER

This is in response to the Remand of 11/3/2006, and supplements the arguments of the revision of the recapture rejection of 4/11/2005, which was in response to the remand of 7/31/2003. This paper replaces the supplemental Examiner's answer of 4/11/2005. All other rejections of the Examiner's Answer (paper number 31, mailed 10/25/2002) are maintained.

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The remand of 11/3/2006 required that the prosecution history of the CIP grandparent case (08/184,331) & its continuing cases (08/538,056 & 08/888,499 = PN 6,607,790) be discussed with respect to the recapture issue. Note all these cases are present in one file, as file-wrapper-continuations. The required discussion is added to the supplemental Examiner's answer of 4/11/2005, below.

Claims 27-29 and 31-33 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc.* v. *Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp.* v. *United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue, which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

In order to make the claims allowable over the prior art in parent application 08/259,584, the specific halogen F, as well as the specific type of fluorine source, CX<sub>4</sub> or CX<sub>3</sub>-(CX<sub>2</sub>)<sub>n</sub>-CX<sub>3</sub> were added to the claims, as well as the minimum concentration of F, [F], in the deposited silicon oxide (detailed prosecution history presented below). The new claims introduced in the reissue broaden the scope of the claims to include all types of halogens from any source and do not require a minimum [F], thus broadening the scope of the process claims to include reagents and proportions thereof, excluded in the 08/259,584 prosecution. Furthermore, while the new claims, as exemplified by claim 27, relate the deposition of a layer deposited from gases comprising Si, O and halogen to "a desired stress" or "a tensile stress", this stress and the concentration of fluorine are inherently related, as can be seen in appellant's

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graphs (Figs. 9-13) or in Homma (EPO 517,548 or USPN 5,288,578) in col. 4 of the EPO reference, hence removing the concentration and source limitations is recapture. These claims are stating an effect caused by the [F] previously claimed, are essentially paraphrasing in order to broaden the claims, i.e., recapture of previously excluded or surrendered limitations or conditions. There are no actual differences that are not broadening the scope to the steps of the process for making the silicon oxide layer, just in which characteristic are chosen to be measured or how one chooses to describe the deposit after making it.

To restate the issue, controlling the stress is intimately or inherently related to controlling the F concentration, hence to claim stress with no clearly defined metes and bounds, in essence recaptures F concentrations (and other halogens) that were excluded by limitations in the patented claims, as may be seen by comparing values in Figures 10 and 13. However, since no information is given on plasma conditions, except flow and gas type, one cannot be sure the same deposition processes are being compared in Figures 10-13. For example, Fig. 10 has no data point above 400 sccm C<sub>2</sub>F<sub>6</sub>, so the specification provides no factual information on [F] in the deposits that Mr. Musaka's Declaration says represent tensile stress. As the specification identifies all deposits in the process as having compressive stress, when the type of stress is named, the contradictions between the specification and Declaration are a problem that cannot be corrected by unsupported allegations by appellant's representatives. Claim 34 dependent on claim 33 includes the limits of the PN. 5,571,57's claims, so is not included above, but the claimed process conditions broader than those of this dependent claim, recapture plasma silicon oxide deposition process conditions previously excluded.

Mr. Musaka's Declaration deals <u>only</u> with Fig. 13, and does <u>not</u> tie the information into the rest of the specification, which exclusively discusses (positive) compressive stress for all deposits exemplified for the appellant's invention, hence there are no teachings of desired deposits characterized by tensile stress. Appellant's <u>allegations</u> on page 11 of the brief, that the compressive stress in the specification are

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only magnitudes and no negative sign is necessary, remain unsupported, so the evidence in the specification, which is sworn to, must be given the greater weight when considering these issues.

### The Prosecution History SN08/184,331 + SN08/538,056 + SN08/888,499

With regard to this recapture issue, the prosecution history of the original grandparent application of which the present case's parent is a CIP, and its children (SN08/184,331, SN08/538,056 & 08/888,499, issued as Pat. No. 6,607,790) is as follows.

The originally-presented independent claims of SN08/184,331 are:

Claim 1. A method of forming a thin film on a substrate comprising the steps of:

forming a plasma by means of a plurality of electrical sources of different frequencies;

introducing into the plasma a reaction gas comprising a mixture of tetraethylorthosilicate gas and a halogen gas; and

subjecting the substrate to the reaction gas reacted by the plasma to deposit a layer on the substrate.

Claim 15. A method of forming a thin film on a substrate of a semiconductor device comprising the steps of:

placing the substrate within a reaction chamber;

creating a plasma within the chamber by the use of a plurality of electrical power sources of different frequencies;

introducing into the chamber a reaction gas comprising a mixture of tetraethylorthosilicate and a halogen gas; and

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subjecting the reaction gas to the plasma to cause the reaction gas to react and deposit a layer on the substrate.

On July 6, 1994 (mailed date), the Examiner rejected claims 1-28 under 35 USC 103 over prior art of Lane et al. (4,894,352), Ishihara et al. (4,818,563) and optionally Yamazaki (4,461,783) or Küyel (4,282,267). In response on 12/5/1994, in amendment in A, Appellants canceled claims 1-28, submitting new claims 29-43, which while paraphrasing the concepts of the previous independent claims, also included (1) that the deposit was silicon oxide; (2) that the relative location of the plasma was adjacent to the substrate; and for claim 39 also added requirements that deposition occur on a substrate having stepped topography be coated (body of claims) or deposition occur in openings with aspect ratios about 0.1 or greater without forming voids (preamble) & that a parallel plate plasma reactor be employed.

The independent claims of 12/5/1994 are:

- Claim 29. A plasma enhanced chemical vapor deposition process for depositing a silicon oxide film from a mixture of plasma precursor gases including tetraethoxysilane and a halogen-containing gas onto a substrate which comprises forming a plasma in a region adjacent to the substrate from said precursor gases by means of a plurality of power sources, each having a different frequency.
- Claim 39. A method of depositing silicon oxide in openings having an aspect ratio of about 1.0 or higher without forming voids in a parallel plate plasma enhanced chemical vapor deposition reactor which comprises

passing a precursor gas mixture including tetraethoxysilane and a halogen-containing compound into said reactor containing a substrate having stepped topography, and

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forming a plasma adjacent to the substrate by means of a plurality of power sources having different frequencies.

On April 3, 1995 (mailed date), the Examiner issued a final rejection over new claims 29-43 under 35 USC 103 over the same prior art as cited above, as well as rejections under 35 USC 112, first paragraph for new matter with respect to new claim 41 & 39-43, and 112, second paragraph for clarity in claims 29-43.

In response, Applicants proposed after final amendment B (not entered 8/28/1995), then in file-wrapper-continuation (08/538,056) with preliminary amendment D ( $\equiv$  B) on 10/2/1995 amended the independent claims to require a silicon oxide film to be "containing a halogen", and that the plurality of power sources are "operated simultaneously".

In a first action rejection mailed May 1, 1996 for SN08/538,056, the Examiner rejected claims 29-34, 38-40 & 42-43 under 35 USC 102(e) and 103 over Nishiyama et al. (5,429,995), and Chebi et al. (5,279,865); claims 29-40 & 42-43 under 35 USC 103 over prior art of Lane et al., Ishihara et al. (563) and Yamazaki or Kuyel or Chebi et al.; claims 29, 30-32, 38-40 & 42-43 under 35 USC 103 over prior art of Homma (5, 288,518) & Chebi et al. or Nguyen et al. (5,356,722); and the 35 USC, second paragraph rejection maintained. In response, with amendment E on 10//21/1996 Applicants amended the independent claims to clarify relationships in the plasma apparatus deposition chamber, plus added two new dependent claims.

In a final rejection mailed January 7, 1997, the Examiner rejected claims 29-38 & 44 under 35 USC 112, first & second paragraph; claims 29-40 & 42-45 under 35 USC 102(e) and 103 over the same prior art as cited above for the first action of 5/1/1996. In response, Applicants filed for a file-wrapper-continuation (08/888,499) with preliminary amendment F on 7/7/1997, which made no amendments to the claims.

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In first action mailed October 16, 1997, the Examiner maintained rejections over claims 29-38 & 44 under 35 USC 112, first & second paragraphs; and claims 29-40 & 42-45 under 35 USC 102(e) and 103 over the same prior art as cited above for the first action of 5/1/1996. The Examiner also rejected claims 29-33, 38-40 & 42-45 under judicially created doctrine of obviousness double patenting over claims 1-10 of US PN 5,571,571, as both sets of claims required the presence of halogen in silicon oxide deposits from TEOS and a source of fluorine when using plasmas of like frequencies, although in varying scopes and orders in the claim sequence.

In response, Appellants filed an Appeal Brief (8/12/98) + supplemental Brief (12/18/1998); and an Examiner's Answer was mailed April 2, 1999; resulting in a decision by Board (9/23/2002, affirmed-in-part), reversing rejections based on 35 USC 112, first & second paragraphs and 103(a) rejections with Lane or Homma as primary references, while affirming the obviousness double patenting rejection, and all 102(e) or 103(a) rejections with Nishiyama as the primary or sole reference. With respect to the 103 rejection based on Homma, pages 12-13 of the 9/23/2002 Decision noted that Homma taught the production of silicon dioxide films with fluorine from a plasma deposition of TEOS and a halogen containing compound, but lacked the use of dual or plural frequencies to create the plasma, where the Board held that the combination of Chebi or Nguyen with Homma did not provide for such plural power sources operated simultaneously at different frequencies.

On 1/21/2003 in response to Board Decision & telephone interview with the available representative of Appellant (1/15/2003 & 1/17/2003), an office action was mailed indicating that claims 28-34, 38-40 & 42-45 were considered terminated, and claims 35-37 were held incomplete, as dependent from canceled claims, in accordance with MPEP 1214.06.

Also in response to the Board Decision Appellants filed (1/7/2003, crossing-in-mail with the Examiner's office action) a certified copy of the priority document, a certified translation thereof & a Terminal Disclaimer (TD), to provide an effective filing date before the filing date of the Nishiyama

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reference & overcome the obviousness double patenting rejection, however appropriate fee for the TD was not present & prosecution on the merits was closed, as the Examiner stated in the advisory action mailed 2/7/2003.

In response, Appellants filed for an RCE and again filed a TD (2/14/2003), which resulted in the Examiner issuing of a notice of allowance mailed on 3/12/2003.

## The Prosecution History SN 08/259,584

With regard to this recapture issue, the prosecution history of the original application (08/259,584 which issued as Pat. No. 5,571,571), it is noted that disclosure related to "stress" and its relation to fluorine concentration was added in this CIP of SN 08/184,331, and that the prosecution history of SN08/259,584 is as follows.

The originally-presented independent claims are:

Claim 1. A method of forming a conformal thin film of silicon oxide on a substrate having closely spaced conductive lines thereon comprising the steps of:

forming a plasma by means of an electrical source in a vacuum chamber;

introducing into the plasma a reaction gas comprising a mixture of tetraethylorthosilicate and a preselected halogen-containing gas; and

subjecting the substrate to the plasma to deposit a high quality layer of silicon oxide onto the substrate without the formation of voids in the film.

Claim 11. A method for forming a conformal thin film of silicon oxide over a substrate having closely spaced conductive lines thereon in a plasma chamber comprising

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Introducing into the chamber as a plasma precursor gas a vaporized TEOS in a carrier gas and a fluorocarbon and thereafter forming a plasma therefrom, to deposit a high quality layer of silicon oxide over said conductive lines.

On January 10, 1995, the Examiner rejected claims 1-15 under 35 USC 102(b), 102(e) and 103 over prior art to Lane, Ishihara, Yamazaki, Küyel, Nguyen, Webb, Yu, Lory, Otsubo, Wang and Weise. In response, Applicant amended claims 1-15 on July 11, 1995 to include the limitations (1) <u>fluorine</u> and (2) <u>plasma above the substrate</u>.

On October 4, 1995, the Examiner issued a final rejection and rejected amended claims 1-15 under 35 USC 102(b), 102(e) and 103 over the same prior art as cited above (the statement of the rejection was revised from that of the first Office action). In Applicant's after-final amendment filed February 12, 1996, which was entered, Applicants amended the independent claims to include limitations 3) halocarbon selected from CX<sub>4</sub> and CX<sub>3</sub>-(CX<sub>2</sub>)<sub>n</sub>-CX<sub>3</sub>, wherein X is hydrogen or halogen, n is an integer from 1 to 5, at least one X is fluorine and 4) at least about 2.5 atomic percent of fluorine. A "312 amendment" filed June 14, 1996 and entered contained no significant changes with regard to the recapture issue.

The issued independent claims are as follows:

Claim 1. A method of forming a conformal thin film of silicon oxide on a substrate having spaced conductive lines thereon comprising the steps of:

mounting a substrate onto a substrate support in a vacuum chamber;

forming a plasma in the vacuum chamber in a region above the substrate by means of

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an electrical power source from a reaction gas comprising a mixture of tetraethylorthosilicate and a fluorine-containing halocarbon gas selected from the group consisting of CX<sub>4</sub> and CX<sub>3</sub>-(CX<sub>2</sub>)<sub>n</sub>-CX<sub>3</sub> wherein X is hydrogen or halogen and n is an integer from 0 to 5 with the proviso that at least one X is fluorine; and subjecting the substrate to the plasma so as to deposit a layer of silicon oxide containing at least about 2.5 atomic percent of fluorine onto the substrate without the formation of voids in the film.

Claim 8. A method of forming a conformal thin film of silicon oxide over a substrate having spaced

conductive lines thereon in a plasma chamber comprising

mounting a substrate in said chamber;

introducing into the chamber in a region above said substrate as a plasma precursor gas vaporized tetraethylorthosilicate in a carrier gas including oxygen and a fluorocarbon selected from the group consisting of  $CX_4$  and  $CX_3$ - $(CX_2)_n$ - $CX_3$  wherein X is hydrogen or fluorine and n is an integer from 0 to 5 with the proviso that at least one X is fluorine;

and thereafter forming a plasma therefrom, so as to deposit a layer of silicon oxide containing at least about 2.5 atomic percent of fluorine over said conductive lines.

Reissue claims on appeal rejected for recapture (claims 27-29 and 31-33):

The reissue independent claim is as follows:

Claim 27. A method of forming a layer of silicon oxide over a substrate having spaced conductive lines thereon in a process chamber, the method comprising:

introducing a selected process gas comprising tetraethylorthosilicate and oxygen into the process chamber;

adding a flow of halogen source to the selected process gas at a flow rate previously determined to achieve a desired stress in the layer from a plasma enhanced reaction of the selected process gas and the flow of the halogen source at the flow rate, the desired stress in the layer being a tensile stress instead of a compressive stress in another layer formed from another plasma enhanced reaction of the selected process gas without the flow of the halogen source; and

forming the layer with the desired tensile stress from the plasma enhanced reaction of the selected process gas and the flow of the halogen source at the flow rate.

#### Appellant's Arguments presented:

In Appellant's Brief filed June 3, 2002, Appellant stated "even assuming *arguendo* that the change of the stress in the layer were inherently related to the fluorine concentration, the formation of a layer at the flow rate selected to produce a tensile stress instead of a compressive stress in the layer would still not be incidental, mere verbiage, or inherent." (p. 14). Appellant further argued the claim is directed to adding a flow of a halogen source to achieve a tensile stress instead of a compressive stress that would otherwise result without the flow of the halogen source (p. 15). In addition, Appellant stated that the Declaration of Musaka (¶ 6) indicated Fig. 13 shows a reduction of the magnitude of compressive stress of about –1.25X10<sup>9</sup> dyne/cm<sup>2</sup> at zero C<sub>2</sub>F<sub>6</sub> flow, with higher C<sub>2</sub>F<sub>6</sub> rates, where the stress changes from negative (compressive) to positive (tensile) at about 450 sccm C<sub>2</sub>F<sub>6</sub> flow rate (p. 11).

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Appellant's supplemental Brief filed December 30, 2002 primarily reiterated arguments presented

in the first Brief and did not add new arguments with regard to the recapture issue.

Response to Argument/Analysis:

The above rejection of reissue claims 27-29 and 31-33 under 35 USC 251 as being an improper

recapture of subject matter surrendered in the application upon which the present reissue is based should

be maintained for the following reasons.

In the original application (08/259,584) for the patent, the claims were rejected based on prior art,

resulting in the addition of:

(1) the halogen source being fluorine,

(2) the fluorine source being  $CX_4$  or  $CX_3$ - $(CX_2)_0$ - $CX_3$ , and

(3) the minimum fluorine concentration being 2.5 atomic percent.

Additionally, Appellant argued the limitations (1) through (3) as not being disclosed nor taught in the

prior art of record, after which the claims were allowed.

In the instant reissue application, claims 27-29 and 31-33 do not include the limitations of (1)

through (3). However, in the original patent prosecution, to overcome the prior art rejection against the

claims, the Appellants rewrote the claims to add limitations (1) through (3). The Appellants made the

choice of inserting those claim limitations into the original independent claims of SN 08/259,584, in a

rewritten form. The Appellants chose not to prosecute further variations of the original independent

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claims. At the present, on reissue, Appellants are not permitted to completely delete, i.e., omit, all of limitations (1)-(3) that were relied upon in for patentability See *Pannu v. Storz Instruments, Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001), discussed below.

In originally-presented claims of grandparent application SN08/184,331, the original independent claims were based on a different scope than the present claims under consideration for reissue recapture, in that the original independent claims and throughout the prosecution of SN08/184,331, SN08/538,056 & 08/888,499, issued as Pat. No. 6,607,790, required a particular type of plasma deposition using a plurality of electrical power sources of different frequencies, where amendments during prosecution refined the type of plasma with respect to the application of these sources, such as to require simultaneous operation of the different frequency power sources. Issuance of PN 6,607,790 was based on the differentiation of the plasma deposition technique with respect to that of the prior art, while the independent claims under consideration for recapture issues have never contained limitations with respect to plural power sources and their frequencies, hence the prosecution history as a whole of SN 08/184,331 through PN 6,607,790 does not appear to be pertinent to the reissue recapture rejection of claims 27-29 and 31-33.

#### Consideration of Eggert:

The decision in *Ex Parte Eggert*, Appeal No. 2001-0790 (Bd. Pat. App. & Inter., decided May 29, 2003) (precedential opinion of an expanded panel of the Board) is not applicable to claims 27-29 and 31-33. In *Eggert*, the limitation relied-upon in the original patent prosecution to define over the prior art was not omitted in its entirety in the reissue claims, but rather was broadened. The reissue claims thus

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remained narrowed, as compared with the surrendered claim subject matter in the area related to (germane to) what was surrendered, and recapture was avoided in *Eggert*.

In the present instance, the reissue claims were either (a) not narrowed as compared with the surrendered claim subject matter, or (b) were narrowed, as compared with the surrendered claim subject matter only in areas not related to (not germane to) what was surrendered. Both (a) and (b) will now be discussed.

Appellant has argued that the surrendered claim subject matter has been narrowed with regard to (a) adding a flow of a halogen source to achieve a tensile stress instead of a compressive stress that would otherwise result without the flow of the halogen source. This was, however, already inherent in the claims that were finally rejected by virtue of Appellant's inclusion (via the July 11, 1995, amendment) of fluorine in the claims, and as to the claims rejected in the first action, by virtue of the halogen in the claims. It would appear that Appellants are alleging that the issued claims utilize compressive stress, while the reissue claims utilize tensile stress. This is simply not the case. In both sets of claims, the layer was formed from a gas mixture containing a halogen, introduced as one step or two steps. None of the claims in either set excludes a halogen. If compressive stress results from a gas mixture without halogen as indicated by Appellants, then compressive stress would not be applicable to any of the claims, as the issued claims and the reissue claims both recite a halogen. Likewise, if tensile stress results from a gas mixture containing a halogen as indicated by Appellants, then tensile stress is applicable to all of the claims. Any argument that the patented claims deal with compressive stress and the reissue claims deal with tensile stress is without basis, as a halogen is recited in all the claims. Also, as pointed out above, the inherent relationship between the stress and the concentration of fluorine is well known as shown in Appellants' graphs (Figs. 9-13) or in Homma (EPO 517,548 or USPN 5,288,578; see col. 4 of the EPO

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reference, or col. 3, line 40-col. 4, line 18 of the US patent). Accordingly, it is submitted that the fluorine is inherently related to tensile stress, and was inherent in the claims before it was explicitly recited in the claims in the reissue.

(The Declaration of Musaka appears to be inconsistent with Appellant's arguments. While Appellants argue that a compressive stress would result without the flow of the halogen source, the Declaration and Figure 13 indicate that compressive stress exists even when a halogen is present, when the  $C_2F_6$  flow rate is below 450 sccm. When the  $C_2F_6$  flow rate exceeds 450 sccm, the stress changes from compressive to tensile stress (Fig. 13). Since the issued claims do not require the  $C_2F_6$  flow rate to be below 450 sccm (compressive stress), these claims encompass both compressive and tensile stress. As the reissue claims recite tensile stress, the reissue claims are inherently related to the issued claims. Specifically, the reissue claims limit the stress to tensile stress, but do not recite the limitations relied upon to overcome the prior art of the issued claims.)

It is further observed that, in the patented claims, the method utilized a gas mixture containing the halogen fluorine. In the reissue claims, the method first introduces a gas mixture without halogen, then adds halogen to the gas mixture in the next step. Whether this is done in one step or two steps, they both result in a gas mixture containing a halogen. Thus, in both sets of claims, the layer formed was upon exposure to a gas mixture containing an unspecified halogen (reissue claims) or the halogen fluorine (issued claims). This, then is not a material narrowing of the claims in the reissue.

(b) Assuming the two step addition of the gas is taken as a material narrowing, and even if the tensile stress could be considered as an additional limitation, the two step addition of gas and the tailoring of the

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tensile stress would not be a narrowing in areas related to (germane to) what was surrendered, i.e., not a narrowing in the area of recapture.

The limitations (1) - (3) were added to overcome the prior art rejection against the claims in the original application. As pointed out above, the applicant made the choice of adding these limitations and retaining only claims that included limitations (1) - (3). The reissue application claims cannot now entirely omit these limitations. This is so, even though claims 27-29 and 31-33 have been narrowed in the reissue application to contain the two-step and stress limitations. As in the case of *Pannu v. Storz Instrument*, *Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001), the limitations presently added to the claims are not related to (1) the halogen source being fluorine, (2) the fluorine source being CX<sub>4</sub> or CX<sub>3</sub>-(CX<sub>2</sub>)<sub>n</sub>-CX<sub>3</sub> and (3) the minimum fluorine concentration being 2.5 atomic percent, all of which are omitted from the claims presently rejected. Following *Pannu*, the present claim subject matter completely omits such limitations, and does not contain a narrowing in the area related to (germane to) the surrender. This is unlike the *Eggert* situation, where the critical relied-upon limitation was not omitted in its entirety, but rather broadened.

Both Hester Industries, Inc. v. Stein, Inc., 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998) and Pannu v. Storz Instruments, Inc., 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001) pointed out that one should look at the limitation relied upon to define the invention over the prior art, and determine if that limitation is omitted in the reissue claims. In the present instance, similar to the facts of Pannu, Appellant has broadened the reissue claim in an aspect germane to what was surrendered in response to the prior art rejections, and has not narrowed those claims in the same area—but rather in a different area. That is, Appellant has broadened the reissue claims by omitting the three limitations necessary to overcome prior art rejections, and has narrowed the stress to tensile stress. Therefore, the decision in Pannu is relevant to

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the issues on appeal, because it provides an actual fact situation in which this scenario, where there was narrowing in a different area, was held to be recapture.

In conclusion, the decision of *Eggert*, Appeal No. 2001-0790 (Bd. Pat. App. & Inter., decided May 29, 2003) (precedential opinion of an expanded panel of the Board) is not on point as to the issues at hand. As pointed out above, in *Eggert*, the relied-upon limitation was not omitted in its entirety, but rather was broadened. Thus, the Board found the claims to escape the recapture doctrine. In contrast in the present instance, the relied-upon limitations are omitted in their entirety.

For the above reasons, it is believed that this rejection should be sustained.

Respectfully submitted,

Marianne L. Padgett

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MLP/dictation software 1/12/2007 2/1/2007

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